

WELL SUMMARY

page 1 of 3Location ID: JP-2-447 Field Representative(s): J. Kirby, R. CooperNorthing: 225325.05 Easting: 397477.96Date Started: 08/02/88 Date Completed: 08/15/88Drilling Method: Air-foam rotary Drilling Contractor: Larjon DrillingDriller: Jim GowerTotal Depth Borehole: 470' Total Depth Well Casing: 462.2'Total Depth Surface Casing: 109'Diameter Well Casing: 4" Diameter Surface Casing: 10"Length of Bottom Blank: 5'Type of Screen: 10' Ex. Strength 0.02 slotScreen Interval: 446.5' to 456.9'Water First Detected: 440'-450' Water Level Open Borehole: 374'Water Level Cased Borehole: 373.8'

Quik-Foam Use: 7 1/2 gallons Quik-foam 10 gallons EZ-mud

Estimated Water Use:- 9400 gallons water used while drilling
 ~ 9043 gallons estimated in mud pit (including formation
 H₂O)
 ~ 357 gallons introduced into formation

Well Casing:

4in x 3ft SCD 40 PVC:	stock SS centralizers:0
4in x 5ft SCD 40 PVC:	custom SS centralizers:1
4in x 10ft SCD 40 PVC:	4"x2' SS locking riser:1
4in x 20ft SCD 40 PVC:	4" SS locking cap:1
Total SCD 40 PVC pipe: 0 ft	4" SS female cap:1
4in x 3ft SCD 5 SS pipe: 1	
4in x 5ft SCD 5 SS pipe: 1	4in x 5ft SCD 10 SS pipe:1
4in x 10ft SCD 5 SS pipe: 1	4in x 10ft SCD 10 SS pipe:1
4in x 20ft SCD 5 SS pipe:19	4in x 20ft SCD 10 SS pipe:2
Total SCD 5 SS pipe: 398 ft	Total SCD 10 SS pipe: 55 ft

Well Completion:

100# bags 16/40 sand: 2 bags
100# bags 10/20 sand: 0 bags
100# bags 8/14 sand: 0 bags
100# bags 8/20 sand: 40 bags

94# bags cement: 125 bags

5 gal. buckets bentonite: 3 buckets

50# bentonite powder: 12 bags

Surface Casing:

94# bags cement: 105 bags

50# bags bentonite powder: 10 bags

Pertinent Field Notes:

08-02-88 Drilled 0'-110', 9 7/8-inch bit. Reamed 0'-50', 16-inch bit. Numerous clay zones present.
08-03-88 Reamed 50'-110', 16-inch bit. Installed steel surface casing (10" x 109'). Grouted surface casing using 105 sacks cement and 10 sacks bentonite gel.
08-04-88 Drill from 100' to 310' with 9 7/8" bit. Reverse drill out of hole because of swelling clays.
08-05-88 Reamed hole from 110'-310' due to swelling clays. Drill from 310' to 410' using EZ-mud and foam to reduce swelling of clays (9 7/8-inch bit).
08-10-88 Drill from 410' to 470', 9 7/8-inch bit. Bit stuck at 450' and 470' while making connection (sloughing from above and around bit). Water detected between 440' and 450'. Cease drilling at 470' due to heaving sands between 460' and 470'. Coring was not possible.
08-11-88 Hole logged by D. Pearson of Southwest Surveys, Farmington, NM. Standard suite of geophysical logs plus drift were used. 4" stainless steel well casing installed to 100'.
08-12-88 Casing installed to bottom (461.5'). No bottom plug installed. 8/20 sand filter, pack, and upper bentonite plug emplaced. 8/20 filler sand was added to 367' (static at 374).
08-13-88 1 1/2 loads of grout added to well.
08-14-88 Develop JP-2 with submersible pump set at 442'. Static Water Level was 373.8'. Pumping rate was between 17 and 18 gpm. Approximately 900 gallons were purged until parameters stabilized (see development sheet for details).

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08-15-88 Grout well to surface, pour pad, and set brass cap. Well completed.